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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/954,475      | 09/14/2001  | Koichi Gen-ei        | 81790.0211          | 6524             |

26021 7590 01/29/2003

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EXAMINER

NGUYEN, DUNG T

ART UNIT PAPER NUMBER

2828

DATE MAILED: 01/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/954,475

Applicant(s)

GEN-EI ET AL.

Examiner

Dung (Michael) T Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

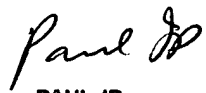
- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

  
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## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statement filed on 10/25/2001 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: the inclination surface 11. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Furthermore, the drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: ref. # 204 and 205 in Fig.4 and ref. # 702 in Fig. 10. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Figures 9-12B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 14-18, 21, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art.

With respect to claim 1-2, 14, 21, and 26, the prior art shows in Fig. 9-10 a semiconductor laser device comprising a diffraction grating 602, a collimator lens 603, a half mirror 604, an objective lens 605, a light receive element 611, a laser chip 701 and a sub-mount 704 having a first surface on which the laser chip is provided and at least one second surface vertical to the first surface. The prior art does not disclose one of the second surface is inclined at an angle of 3 to 30 degrees to the emission facet. It would have been obvious to one having ordinary skill in the art at the time the invention was made to do so, since it is held that

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discovering an optimum value of a result effective variable involves only routine skill in the art.

In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCP 1980).

With respect to claims 3, 15, and 27, the prior art shows in Fig. 10 a plane shape of the sub-mount is a rectangle.

With respect to claims 4, 16, and 28, the prior art shows in Fig. 10 a plane shape of the sub-mount is a parallelogram.

With respect to claims 5 and 17, the prior art shows in Fig. 10 the laser chip is a square

With respect to claims 6 and 18, it would have been obvious to one having ordinary skill in the art at the time the invention was made to do so, since it is held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCP 1980).

Claims 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Staskus et al. (USPN 5923692). The prior art discloses all limitations of the claim except for the sub-mount being provided on a heat sink. Staskus et al. teach a heat sink (Fig. 1A). For the benefit of cooling a laser device, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the prior art a heat sink as taught by Staskus et al.

Claims 7, 9-13, 19, and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Kawamura et al. (USPN 6452880 / relied on Foreign Application Priority Data of Dec.22, 1999 JP).

With respect to claims 9-11 and 22-23, the prior art discloses above all limitations of the claim except for two laser beams. Kawamura et al. teach two laser beams of 780nm and 650nm (Fig.4). For the benefit of a semiconductor laser device, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the prior art a laser chip with two laser beams as taught by Kawamura et al.

With respect to claims 7 and 19, Kawamura et al. show in Fig.4 the sub-mount material is Si.

With respect to claims 12 and 24, Kawamura et al. show in Fig. 3-4 the laser chip has electrodes 42 and 43 and the sub-mount has electrodes 45 and 46 connected with electrodes 42 and 43.

With respect to claims 13 and 25, Kawamura et al. show in Fig. 4 the sub-mount has slit between the electrodes.

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### **Citation of The Pertinent References**

The following US patents are being made of record, even though they were not relied upon in this Office action, for being similar in subject matter, and may be relied upon in any future Office Actions: 6314117, US2001/0022796, and 6364541.

### **Communication Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung (Michael) T Nguyen whose telephone number is (703) 305-7159. The examiner can normally be reached on 8:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 306-5511 for regular communications and (703) 306-5511 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.

Nguyen (Michael) Dung  
January 15, 2003

  
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